AMENDMENTS TO THE CLAIMS

Claims 8-11 and 18-20 have been cancelled due to the Examiner's previous restriction requirement, claims 21-26 have been added, and claim 2 has been amended. The following is a complete listing of the claims, which replaces all previous versions and listings of the claims.

1. (original) A system that provides user specific beams in a fixed beam network, the fixed beam network comprising a plurality of fixed beams, each of the plurality of fixed beams being defined by a plurality of fixed beam correlation coefficients, the system comprising:

a device that computes reception correlation data for a received signal; and

beamformer that is adapted to determine transmission weighting coefficients to be applied to a return signal based on the difference between the reception correlation data and the fixed beam weighting coefficients associated with at least one of the plurality of fixed beams.

2. (currently amended) The system set forth in claim 1, comprising a device that identifies one of a ~~the~~ plurality of common phase reference signals, the fixed beam weighting coefficients of which are to be used in determining the transmission weighting coefficients for a return transmission.

3. (original) The system set forth in claim 1, wherein the system comprises at least a portion of a cellular telephone base station.

4. (original) The system set forth in claim 1, wherein the transmission weighting coefficients are computed according the formula $v_o = \frac{1}{\kappa} W \left(I + j(Q_1 + \gamma I)^{-1} Q_2 \right) X \bar{p}^*$.

5. (original)   The system set forth in claim 1, wherein each of the fixed beams is associated with a common phase reference.

6. (original)   The system set forth in claim 5, wherein each of the common phase references comprises a secondary common pilot channel (S-CPICH).

7. (original)   The system set forth in claim 1, wherein the transmission weighting coefficients may be expressed as a weighting matrix.

8 -11. (cancelled)

12. (original) A method for providing user specific beams in a fixed beam network, the fixed beam network comprising a plurality of fixed beams, each of the plurality of fixed beams being defined by a plurality of fixed beam correlation coefficients, the method comprising the acts of:

computing reception correlation data for a received signal; and

determining transmission weighting coefficients to be applied to a return signal based on the difference between the reception correlation data and the fixed beam weighting coefficients associated with at least one of the plurality of fixed beams.

13. (original) The method set forth in claim 12, comprising the act of identifying one of the plurality of fixed beams, the fixed beam weighting coefficients of which are to be used in determining the transmission weighting coefficients for a return transmission.

14. (original) The method set forth in claim 12, comprising the act of calculating the transmission weighting coefficients according the formula

$$v_o = \frac{1}{\kappa} W \left(I + j(Q_1 + \gamma I)^{-1} Q_2 \right) X \overline{p}^* .$$

15. (original) The method set forth in claim 12, comprising the act of defining each of the fixed beams to be associated with a common phase reference.

16. (original) The method set forth in claim 15, comprising the act of defining each of the common phase references to comprise a secondary common pilot channel (S-CPICH).

17. (original)   The method set forth in claim 12, comprising the act of expressing the transmission weighting coefficients as a weighting matrix.

18-20. (cancelled)

21. (new) A tangible machine readable medium comprising:

code adapted to compute reception correlation data for a received signal; and

code adapted to determine transmission weighting coefficients to be applied to a return signal based on the difference between reception correlation data and fixed beam weighting coefficients associated with at least one of a plurality of fixed beams in a fixed beam network.

22. (new) The tangible medium, as set forth in claim 21, comprising:

code adapted to identify one of the plurality of fixed beams, the fixed beam weighting coefficients of which are to be used in determining the transmission weighting coefficients for a return transmission.

23. (new) The tangible medium, as set forth in claim 21, comprising:

code adapted to define each of the fixed beams to be associated with a common phase reference.

24. (new) The tangible medium, as set forth in claim 23, comprising:

code adapted to define each of the common phase references to comprise a

secondary common pilot channel (S-CPICH).

25. (new) A system comprising:

a device that computes reception correlation data for a received signal; and

a beamformer configured to provide user specific beams in a fixed beam network,

wherein the beamformer adapted to determine transmission weighting coefficients to be

applied to a return signal based on the difference between the reception correlation data

and one or more fixed beam weighting coefficients.

26. (new) The system, as set forth in claim 25, wherein the beamformer is adapted

to determine transmission weighting coefficients associated with at least one of a plurality

of fixed beams.